

2015 Early Blight Standard Foliar Fungicides (1500 Series)

Location: Inkster, ND
Plot design: 4 rows X 30 feet X 4 replicates; RCBD
All four rows were sprayed; foliar disease data taken from the center two rows.
Planting date: May 29, 2015
Row width: 36 inches
Seed spacing: 14 inches
Cultivar: Ranger Russet
50% Emergence: June 20

Fertilizer: Broadcast: 67#N, 124#K, 30#S, 1.5#Zn, 2#B, 1#Cu; May 22
Starter: 29#N, 100#P; May 29
Herbicide: Prowl (2 pts/a) + Sencor (0.5 lb/a) + Matrix (1.5 oz/a); June 12
Insecticide: Admire Pro (8.7 oz/a); IF at plant
Coragen (5 oz/a); July 9
Asana (9.6 oz/a); July 27
Coragen (5 oz/a); August 4
Asana (9.6 oz/a); August 11
Blackhawk (3.3 oz/a); August 17

Objective: To determine the efficacy of standard fungicide chemistries and fungicide programs for the control of early blight caused by *Alternaria solani*.

Early blight inoculation method: Four *A. solani* isolates, two containing the F129L mutation and two wild-type were grown under constant light for 2 weeks on CV-8 medium. Conidia were dislodged and diluted in 0.25% gelatin to a concentration of 6.7×10^3 conidia / ml. This suspension was applied to the outside two rows of each four-row plot at a rate of 104 ml / row on the evening of July 27 using custom ATV spray equipment. A second inoculation was made on the evening of August 10 at the concentration of 5.2×10^3 conidia / ml at the rate of 100 ml / row.

Foliar application dates: July 10, 15, 22, 30, August 4, 13, 18, 25, Sept. 1, 10
Foliar application method: Fungicides were applied using a converted ATV. (55 psi; 61 gpa; 11005XR nozzles)

Vinekill: Rotobeat; October 5
Harvest: October 5 - 6

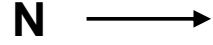
2015 Early Blight Foliar Standard Fungicides - Inkster Series 1500

* 1502 - 1508 are confidential. *

Treatment	Rate	Schedule	Interval	Foliar Disease (% Severity)										AUDPC	RAUDPC	Yield (cwt/a)
				7/14	7/21	7/28	8/4	8/11	8/18	8/25	9/1	9/8	9/15			
1501 Non-treated	-	-	-	0.14	0.47	0.98	1.19	1.40	2.72	6.06	22.19	72.44	94.56	1083.180	0.159	416.91
1502 Confidential				0.06	0.24	0.48	0.56	0.43	0.38	0.43	0.98	2.03	39.69	178.050	0.026	453.75
1503 Confidential				0.21	0.50	0.54	0.55	0.71	0.59	1.01	2.53	6.25	51.25	269.400	0.040	436.23
1504 Confidential				0.08	0.23	0.58	0.83	0.76	1.06	0.88	1.15	2.58	21.88	133.290	0.020	450.00
1505 Confidential				0.12	0.37	0.81	0.91	0.65	1.53	2.16	4.80	15.28	50.75	363.530	0.053	457.55
1506 Confidential				0.01	0.21	0.53	0.58	0.61	0.59	0.78	1.98	12.95	48.44	297.090	0.044	443.12
1507 Confidential				0.23	0.49	0.66	0.54	0.56	1.20	1.49	3.20	26.09	60.31	451.730	0.066	446.50
1508 Confidential				0.02	0.26	0.42	0.38	0.37	0.48	0.53	2.21	6.59	33.88	197.290	0.029	432.25
1509 Equation SC	6.0 fl oz / a	Full Season	7 day	0.14	0.17	0.31	0.54	0.98	2.54	6.22	21.38	45.56	75.19	806.960	0.119	448.73
1510 Equation SC	12.0 fl oz / a	Full Season	7 day	0.04	0.22	0.68	0.40	0.36	0.53	2.41	9.25	48.38	81.94	722.520	0.106	435.14
1511 Equation SC + Koverall	12.0 fl oz / a + 2.0 lb / a	Full Season	7 day	0.14	0.26	0.40	0.46	0.46	1.43	2.82	6.06	9.31	32.00	260.820	0.038	456.22
1512 Quadris	12.0 fl oz / a	Full Season	7 day	0.03	0.24	0.64	0.52	0.73	1.32	1.81	11.19	30.88	71.69	581.800	0.086	448.97
1513 Echo Zn	2.125 pt / a	Full Season	7 day	0.14	0.29	0.44	0.65	0.86	2.01	3.18	8.03	19.69	51.19	425.300	0.063	441.30
1514 Echo Zn Headline + Dithane Luna Tranquility + Dithane Scala + Dithane	2.125 pt / a 9 fl oz/a + 2 lb / a 11.2 fl oz / a + 2 lb / a 7 fl oz / a + 2 lb / a	1,3,4,6,8,9,10 2 5 7	7 day	0.04	0.11	0.33	0.50	0.44	0.69	0.59	1.08	1.91	16.16	96.230	0.014	451.75
LSDp=0.05				0.08	0.22	0.37	0.44	0.50	0.83	1.89	5.53	13.10	15.79	355.990	0.052	NS

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Inkster Series 1500



Rep IV

1510	1509	1502	1507	1506	1511	1514	1513	1512	1505	1504	1503	1508	1501
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Rep III

1514	1511	1512	1501	1504	1513	1510	1509	1508	1503	1506	1507	1502	1505
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Rep II

1506	1513	1508	1505	1514	1509	1504	1509	1510	1511	1502	1501	1512	1509
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Rep I

1512	1501	1504	1505	1502	1509	1508	1511	1514	1509	1510	1513	1506	1509
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